

## REMARKS

In the Official Action mailed on **April 27, 2004** the Examiner reviewed claims 1-6, 9-14, and 17-22. Claims 1-5, 9-13, and 17-21 were rejected under 35 U.S.C. §102(b) as being anticipated by Spix et al (USPN 5,179,702, hereinafter "Spix"). Claims 6, 14, and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Spix in view of Hapner et al (USPN 5,940,827, hereinafter "Hapner").

### Rejections under 35 U.S.C. §102(b) and 35 U.S.C. §103(a)

Independent claims 1, 9, and 17 were rejected as being anticipated by Spix. Applicant respectfully points out that Spix teaches:

1. a software architecture that integrates a symmetrical, multithreaded operating system and a parallel user environment that are matched with the design of the highly parallel multiprocessor system (see Spix, col. 8, lines 10-31);
2. a control flow graph used in conjunction with code optimizations within a compiler (see Spix, col. 45, line 16 to col. 46, line 2);
3. a Tool Set for compiling, linking, and executing a program (see Spix, col. 42, lines 35-60);
4. an anarchy-based scheduling module to increase the efficiency of task switches (see Spix, col. 9, lines 1-27); and
5. an optimizer that is used in conjunction with a compiler to provide faster running compiled code (see Spix, optimizer 2704, Fig. 25A, and col. 44, line 57 to col. 45, line 30).

In contrast, the present invention is directed to:

1. modifying an application to record statistics related to synchronization points within the application (see page 7, lines 2-4 of the instant application);

2. running the application to produce the statistics (see page 7, lines 17-27 of the instant application);
3. using the statistics to construct a performance model of the application (see page 8, lines 1-6 of the instant application); and
4. using the performance model to predict the performance of the application (see page 8, lines 1-7 of the instant application).

Note that the performance model can be an analytical model that can be numerically solved to predict performance or can be a simulation module that can be simulated through a computer program to predict performance.

Contrary to the assertions of the Examiner, Applicant respectfully points out that there is nothing within Spix that suggests the steps of the present invention as described above. Specifically, Spix does not:

1. modify an application to record statistics,
2. run the application to produce the statistics,
3. use the statistics to construct a performance model, or
4. run a performance model to predict the performance of the application.

Hence, Applicant respectfully submits that independent claims 1, 9, and 17 as presently amended are in condition for allowance. Applicant also submits that claims 2-6, which depend upon claim 1, claims 10-14, which depend upon claim 9, and claims 18-22, which depend upon claim 17, are for the same reasons in condition for allowance and for reasons of the unique combinations recited in such claims.

**CONCLUSION**

It is submitted that the present application is presently in form for allowance. Such action is respectfully requested.

Respectfully submitted,

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